

DEPARTMENT OF COMMERCE  
BUREAU OF FISHERIES

ALASKA  
SEP 24 1923  
FISHERIES

Seattle, Washington, Sept. 15, 1923.

*Noted  
Hesmo*

The Commissioner of Fisheries,  
Washington.

*Dr. Gilbert  
noted this  
Oct. 17, 1923.*

I herewith present the following general report covering my operations in the Alaska Peninsula Fisheries Reservation for the fishing season of 1923:

FOREWORD:

The Alaska Peninsula Fisheries Reservation is the longest in extent, including the Aleutian chain, and perhaps the most elementally exposed of any Fisheries reservation in Alaska. Roughly it consists of six districts, - The Shumigan Islands District, the Ikatan district adjoining the Shumigans on the Pacific side of the Peninsula; the Port Moller and the Port Haiden districts on the Bering sea side, and farthest west of all, - the Aleutian group of Islands, including all the islands west of Unimak Pass.

Through and around these districts are the free highways of the seas where the Salmon runs pass on their way to parent streams for spawning.

The whole Reservation is a great cross-roads for those migrating salmon runs passing from the Pacific Ocean to the Bering Sea and its extensive spawning areas.

The country is everywhere coastal in character and is wildly rugged, consisting of mountains, cliffs, sheer rocks and headlands lifting abruptly from the Seas. The water is practically always rough, a windy climate keeping a continuous surf running.

Six salmon canneries at present are located in the Reservation. Intermittently small salteries are operated. These plants are located at widely distributed points and due to distances to be travelled and wild winds and heavy surf conditions that must be faced, the Government representatives endure considerable weather hardship and some sea hazard.

### SALMON RUNS:

Salmon runs are in motion in the month of May and continue until late August, and ordinarily are of ample volume to furnish the operating canneries a steady catch and an early pack.

The Shumigan Islands apparently are the pivotal point or the jumping-off spot from which the runs operate. The majority of the runs, according to available information, show first off these Islands. They then follow the Alaska Peninsula westward to Unimak pass. Then entering Bering sea thru this Pass they head for their spawning grounds on the last lap of their journey.

There are a number of "local" runs that find their propogating grounds in the Reservation itself which obviously do not follow this route, but turn in to their spawning streams, as these are reached.

### THIS SEASONS RUNS:

The salmon runs this season could not be classed other than as a failure. This is speaking both from the standpoint of catch and pack. No cannery under the government regulations, with but one exception, secured its allotted pack, entirely due, it may be said, to the small run.

Ordinarily the canneries have their pack and clear for home ports by the middle of July to the first of August. This season, however, it was the middle of August before any of the cannery fleet started South. In fact in a frantic effort to make good and secure their allotment, all the canneries were still packing salmon when the middle of August arrived, and some of them operated until the latter part of the month. While they had lost out in securing a first-class pack so much desired, there was still in motion a medium run of Dogs with hopes for more. Silvers, also, were beginning to put in an appearance. Grasping at these frail straws the canneries continued operating. This late work resulted in the packers putting up more Silvers this season than in previous years. Canning was persisted in until both of these inferior runs -- Dogs and Silvers -- finally slacked and fish entirely disappeared from the

fishing grounds.

SALMON PACK:

While this was a so called "off year" and in consequence no record breaking runs expected, still it was assumed that the catch would furnish a normal "off" year output. This supposition did not hold good. The facts are that the allotment granted as against actual production shows a big deficit. It is an unpleasant fact that the runs this season were less in volume than the runs of the average "off" year should be, and during the most of the time the operating canneries were running short of fish. Half capacity was very common with nearly all the packers and the end of the season showed that the canneries had packed longer and packed less than during, - if I am not mistaken - any other year.

I have already forwarded preliminary pack reports for the individual plants.

SALMON HANDLING AND WASTE:

It is almost superfluous, after what has been said relative to leanness of runs, to state that there was no fish waste at any of the canneries. Neither were there any decayed fish packed. In these two respects the canneries of the Peninsula World likely made the best record for themselves of any season's operating in these waters.

Fish were too scarce and too hard to get to permit of the waste of a single salmon. In addition the canneries were running on so light a catch per diem that all fish taken were packed at once while fresh. In these two respects the packs were uniform and of the first quality.

It may also be said in passing that the traps in this district are invariably near to the owning cannery and the carriage following brailing is of but short duration. Reasoning from these general conditions it is perhaps true that the Peninsula region turned out as fine a quality of pack as any district on the entire Alaskan coast.

LOCAL PERMITS:

Local permits were issued only after consulting with Dr. Gilbert or Mr. Studdert.

All of these permits were acted upon favorably with but one exception. The amount of pack, gear and fishing area were sometimes restricted nevertheless. This was done, however, only in those spots where the future of the runs was threatened.

The one exception mentioned has already been reported to the Commissioner in a letter covering the reasons for unfavorable action.

The majority of the permits issued in the Peninsula reservation were utilized. Only in the Unga district were permits requested, and not made use of. Some of these applicants did not seem to know their minds as in many cases the parties requesting permits were not in a position to salt fish, having no barrels or salt, and not having made any arrangement for the delivery of the same. It is my impression that several permits may have been asked for simply to embarrass the administration of Bureau affairs.

Of the permits given thirteen were for beach seines, seven for half-purse seines and three for gill nets.

In the Ikatan district permits were all utilized, but this was not the case in the Shumigan district, where two permits for beach seines were granted but not made use of, while the same was true of a half purse seine permit issued.

The following tabulation gives a general summing up of permits granted by districts:

SHUMIGAN DISTRICT

ISSUED

11 Beach Seines,  
1 Gill Net  
5 Half Purse Seines,

UTILIZED

Nine,  
One,  
Four

*Two H. Seines  
Unga  
Kungas little  
of May 24  
Seines intended  
using same gear  
as N.H. Johnson*

IKATAN DISTRICT

ISSUED

2 Beach Seines,  
1 Gill Net  
2 Half Purse Seines,

UTILIZED

Two  
One  
Two

In the Port Moller district one gill net permit was issued to cover the operations of three men who were to fish for silvers in Nelson's lagoon after the rest of the run had passed. They had not yet commenced fishing when I left.

CARE IN ISSUANCE OF PERMITS:

It is my opinion that the same care will hereafter have to be employed as heretofore in the issuance of permits, if the local salmon runs are to be conserved. By the term "Local" runs I refer to those salmon runs which find their spawning grounds in areas within the Peninsula regions. The runs which only pass thru these waters on their way to far off spawning grounds, such as the Kvichak, Naknek, Nushagak, etc., are stronger and will bear up under a heavier catching strain than the "local" runs.

The "local" as compared with the large or migrating run is so scant and feeble as to be hardly considered in the same class, and it is these, which to my notion, should be constantly fostered and protected. Unless they are they will speedily become extinct under the pressure of fishing operations.

SALMON ESCAPEMENTS:

Naturally falling into line with the foregoing is the matter of salmon escapement into the spawning areas of the Reservation. (An estimate of the escapement of the "migrating" runs would be so doubtful that I will not make a hazard in that direction.

While this question of migrating and local salmon escapement was handled by other and abler investigators, as noted elsewhere in this report, I nevertheless desire to say that considering the small size of the runs there was relatively a large escapement. I frequently noticed that just prior to and during closed seasons there were many schools adjacent to the traps visited by me. It is certain that thousands and thousands of such fish passed the gear and went on to their spawning grounds.

#### CATCH STRAIN:

A very heavy catch strain was placed this season upon all salmon runs flowing into or thru the fishing grounds of the Peninsula Reservation, for notwithstanding the packers did not get their quotas the salmon runs were taxed to their uttermost to furnish the insufficient catch.

#### RUN CONSERVATION:

In considering the problem of run conservation, which is obviously complex and difficult of solution from the nature of these waters, it is likely that the Bureau's allotment plan - as already worked out - is the best that could be devised.

While there are many divergent views, some advocating a pack limit, others a gear limit, others time limit on duration of packing operations the fact remains that the simplest and most effective as well as the most workable method of handling the issue is the one the Bureau has adopted.

#### SPAWNING AREAS:

The several propagating grounds are principally lakes of very modest size, out of each of which a small stream flows to the sea. In most instances

this stream is not of sufficient volume to keep open a well defined channel thru the beach sand where it meets the Sea, and the result is salmon very often wait for days for a favorable tide on which to enter the stream. The surf also has a detrimental effect on the salmon runs entering these small streams, as its continual beating upon the beaches often blocks up stream channels for several days. This is particularly noticeable in some of the lagoons where a light volcanic cinder like substance lays in bars at the mouth of the lagoon. After a storm this becomes shifted to one side or the other, inside or outside the lagoon. Sometimes the mouth of the lagoon is closed up entirely with the result that the channel remains blocked until the back pressure in the lagoon bursts a new channel through. Fish entering these lagoons meet with many difficulties. The water is always quite low with the result that the salmon are a prey to sea gulls standing on the surrounding bars. On large tides the fish enter easier and without the hindrance of gulls but are followed by numerous seals far into the many channels comprising these lagoons.

#### LAGOON FISHING:

Fishing inside the lagoons is a grave, perhaps a vital issue in the life of a salmon run entering such waters. While such fishing is not on or actually at the spawning grounds it is still within the mouth of the salmon stream, and inside the bar across which the salmon have a great deal of difficulty in passing. The flat nature of the lagoon bottom, shallowness of the water and its many channels often also detain the ascending salmon for several days. In the early part of the season, when the salmon are not yet mature for spawning, they play about in the channels of these lagoons for days and are easily caught by fishing the lagoons. Operators prefer to fish inside of the lagoons for several reasons, the principal one of which is the protection they offer from surf and storms. A great deal of the time it is impossible to fish "outside" while fishing can be carried on on all tides within the lagoon, and the fish are more easily caught by reason of the fact that they have only a narrow passage in which to enter in comparison with the extent of the wide sea beach.

REGULATION OF LAGOON FISHING:

There should be a bureau ruling either regulating or else prohibiting altogether lagoon fishing. As it is carried on at present it is a menace to the future runs of the lagoons. If fishing is to be allowed in lagoons a rack constructed across the channel just inside of the entrance could, in some of the lagoons, be used to check up on the run and permit a pre-determined per cent of the run to escape to spawn. The remainder could be used for commercial purposes.

I understand there has been some mention of this being done next season at Nelson lagoon, the largest in the Reservation. I am not acquainted with that lagoon, but next in importance - if not equally as important, - comes Thin Point, which I have in mind in suggesting rack construction. This lagoon is so situated, owing to the protected nature of its waters and the narrow channel near the mouth, as to require very little work and effort to rack. The work of racking could be done jointly by the Bureau and the operators, or else done entirely at the expense of the Company enjoying exclusive fishing rights, where such condition existed. The Bureau should provide a stream watchman to keep a check on the run and insure sufficient escapement. There are other lagoons of less importance located in Cold bay and on the Bering Sea side of Unimak Island. Those in the cold bay region were fished this season at different intervals by Peter M. Neilsen, who had a permit for that body of water. Those on the Bering sea side of Unimak Island were not this year fished. They have been fished in the past by the P. E. Harris Company. This Company at that time was located in Morzhovoi Bay.

It is a question whether the salmon runs entering the Cold bay and Unimak lagoons are of sufficient volume and importance to warrant the expense of racking and the subsequent care such racking would entail. Regulations to take care of the lagoon question should be drawn up for salmon protection, however. A date at which fishing should cease could be set, or else fishing prohibited entirely within a prescribed distance from the mouths of salmon streams and lagoons.

PATROL:

The patrol of the waters of the Pacific side of the Peninsula Reservation was maintained by me thru out the season. Fishing grounds frequented by the holders of local permits were watched and visited as often as time and weather would allow. A weekly patrol was maintained thru out the entire season in the Skumigan and Ikatan districts with the boat supplied for that purpose. These were the only districts in which the Merganser - the craft operated - could be navigated with safety, other districts being either too remote of else too exposed to heavy seas.

In the districts patrolled all fish traps were visited at least on one occasion during the season. The majority of the traps were, in fact, visited each and every closed season. No patrol was maintained by me in the Port Heiden and the Aleutian Islands districts. Commercial fishing was not done in either of these regions with the single exception of the Akatan Whaling Station.

The Port Moller district was not visited owing to the lack of time and the difficulty of reaching same. By taking the U. S. Survey boat Pioneer, bound from False Pass to Unalaska for oil, I was afforded an opportunity to make a quick visit to the latter place and see the operators in the Aleutian district. These men want permits for next season's fishing in that region.

TRAPS:

The Ikatan cannery of the Pacific American Company was allotted eight traps for the season. This is the number permitted these operators in those waters by the Government. Of the eight allowed seven were fished, one trap not being driven. This was No. 9 located outside of Ikatan point. Work was begun on it, but storms and the lateness of the season conspired against its completion.

The P. E. Harris Company of False Pass, was allowed four traps and two seine boats. All these traps were driven and both seine boats operated for a portion of the season only. Owing to the small run the fishermen became disheartened and quit, migrating early to Puget Sound to engage in fishing there.

The King Cove cannery, of the Pacific American fisheries, was allotted eight traps and three beach seines. All of these traps were driven and the beach seines operated.

The Shumigan Packing Company was allotted four traps. Of these, but three were utilized. This Company operated two traps only last year. The number of their traps was doubled this season but only one of the two allowed was driven.

#### TRAP SEALS:

In my first Semi-monthly report for June I attached a note suggesting the adoption of some form of seal for placing on the heart walls and tunnel of traps during the closed season. The need of such a practise is apparent and it seems to me that a seal could easily be devised. If this course was made operative, a representative of the Bureau could visit and seal any trap or all traps. Upon returning he would know for a certainty if they had been tampered with. There is a recommendation in this report bearing on this subject.

#### SALMON ENEMIES:

The hair seal, as is generally known, is one of the greatest and most deadly natural enemies of the Salmon. The favorite sport of this animal is to play just beyond the surf line and follow the ascending salmon on the flood tide into the spawning streams and lagoons. A close ally of the seal in the destruction of the salmon is the sea lion. These loiter about the numerous reefs of

the Peninsula country and make large catches of passing salmon. These two natural enemies of the salmon are very numerous in the Peninsula region and their depredations in the salmon schools are so well known from the Aleutians to Southeastern Alaska that it is not worth while to discuss the advisability of their extermination. On many occasions while patrolling the waters of the Peninsula reservations seals were shot and in some cases others driven away from stream mouths entirely for a short time. Appended to this report is a snap shot of three hair seal carcasses which were recovered in the waters of Swanson lagoon after I had shot them. I include a recommendation bearing on the extermination of these animals.

#### PROHIBITIVE MONUMENTS:

Prohibitive monuments were placed at the mouths of as many of the important salmon streams as practicable. In instances where a stream, due to its remoteness, was not reached the operators securing permits to fish in that locality were cautioned to comply strictly with the regulations. All reports reaching me indicated that these men acted in good faith.

#### NATIVE OPERATIONS:

The Natives or Aleuts in the Peninsula Reservation did no commercial fishing. They were employed, that is the great majority of them, by the different canneries. It is my impression, gained from observations, that they were all well used and the greater portion of them had a profitable season, considering the light extent of the salmon run.

VISITORS:

During the season the reservation was visited in the interest of Salmon Conservation by The Commissioner, Mr. Henry O'Malley, who with United States Senator Wesley L. Jones and Congressman Hadley made a careful survey of conditions existing in the reservation. Representative Sutherland, of the Territory of Alaska, also made a tour of the reservation, which was notable for its briefness.

The Bureau's special representatives detailed to the district in the interest of conservation and scientific inquiry and investigation were Dr. C. H. Gilbert and Messrs. Willis Rich and William Studdert. They conducted tagging experiments, studied characteristics of salmon runs and visited important spawning areas of the Reservation.

RECOMENDATIONS:

The following Recommendations are submitted for your consideration:

1: Consideration of and adoption of a method of Trap Sealing.

2: The issuance of permits with the least possible delay at the opening of the season, thus giving operators as much time as possible to prepare for the pack.

3: The addition of at least two Stream Watchmen, and one Warden to the patrol force. This would make possible a fair patrol both of Bering Sea and also the Pacific Ocean districts.

4: A continuance of the war against the Hair Seal and withdrawing the protection from the sea lion.

5. The prohibition of commercial fishing within 500 yards of the mouths of all streams and lagoons unless escapement racks are provided.

6. The purchase of a sturdy seaworthy boat of the purse seine type equipped with a sufficiently powered heavy duty engine for patrol and cruising service.

*Linnell G. Whigard.*  
Assistant Agent

*c.c. Seattle office.*